Employment in low-wage firms: the scarring effect on worker's career

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[VERY PRELIMINARY, PLEASE DO NOT CIRCULATE.]

Abstract

Job poaching often occurs when workers climb the firm productivity ladder. In this paper, we first investigate the extent to which the type of the poached firm impacts the hiring wage received by job movers in their destination firms. While the origin firm type does not significantly impact the hiring wage of workers moving into low-wage firms, we find a substantial wage penalty for workers moving into high-wage firms and transitioning out of low-wage firms as opposed to high-wage firms. Notably, this penalty is larger for high-wage workers. We interpret this result as a strong evidence in support of wage bargaining mechanisms in high-wage firms, in contrast to the bottom part of the firm type distribution where wage posting appears more prevalent. Second, we show that the origin firm effect is highly persistent and influences the worker's career up to thirteen years after the worker's separation from the origin firm. To explain this persistence, we measure the effect of the origin firm type on various labor market outcomes, such as hourly wages, the probability of

unemployment, tenure, the probability of further job switches, over the thirteen years following the job change.

1 Introduction

Cross-firm differences in wage-setting are widely documented in the literature. Building on the two-sided fixed-effects model proposed by Abowd et al. (1999), numerous studies have aimed at quantifying the contributions of firm-specific heterogeneity to the variability in wages. According to the review article by Card et al. (2018), firm wage effects typically contribute about 20% of the overall wage dispersion.[1] A natural question is whether the firm-specific effect in wage determination is long-lived and potentially outlasts employment relationships. In this paper, we therefore take a longer term perspective. We investigate whether firm effects on wages and earnings persist over time and perdure even after the worker's separation from the firm.

Firm wage effects are commonly explained either by cross-firm differences in productive characteristics or by the monopsony power that firms derive from search frictions and switching costs. These two sources of wage dispersion are interconnected: labor market frictions allow low-productive firms to survive and high-productive firms tend to benefit from a higher degree of monopsony power. Moreover, while firm heterogeneity in productivity provides the necessary ground for the sorting of more productive workers to more productive firms, search frictions prevent perfect sorting and cause suboptimal matches. By allowing workers to climb the productivity ladder, worker mobility might correct these misallocations of workers to firms.

To the extent that remaining with their incumbent firms represents their outside option, the wage negotiation of job switchers should take into account the wage contract that workers receive at their origin firms. Sequential auction models (e.g. Postel-Vinay and Robin (2002)) develop frameworks in which employed workers regularly receive wage offers from potential poaching firms, bringing incumbent and poaching firms to enter a Bertrand competition that is won by the most productive firm. When a firm change occurs, the worker then receives the lowest wage necessary to prompt the move. Importantly, this wage threshold is increasing in the productivity type of the origin firm, since high productivity firms are better able to counteroffer in order to retain their

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[1]After correction of the potential limited mobility bias, Bonhomme et al. (2022) report a contribution of firm effects to wage inequality that ranges from 5% to 16% in several developed countries, while Kline et al. (2020) find a contribution 13% to the overall variance of wages in Italy.

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workers.

In this paper, we first test empirically the prediction that firm-specific heterogeneity of origin firms influences the hiring wages of job switchers. Intrinsically, this test informs on the nature of the wage setting process and the relative incidence of wage bargaining versus wage posting in the labor market. Sequential auction models a la Postel-Vinay and Robin (2002) assume a certain degree of bargaining between workers and firms: even when firms have full bargaining power, workers get implicit bargaining power from their outside options.[2] Firms therefore have to adjust their wage offers to the outside options of the particular worker they meet. Alternatively, employers might unilaterally post non-negotiable wage offers. Under this scenario of wage posting, we would obtain that, conditional on observing the worker transitioning from the origin firm to the destination firm, the type of the origin firm should not influence the wage received at the destination firm. Our results show that wage posting is a good characterization of the wage setting process taking place in low-wage firms. Indeed, the type of the origin firm does not substantially impact the wage received at the destination firm, and we only observe a small wage gain for low-wage workers transitioning to low-wage firms from high-wage firms. In contrast, we find strong evidence in support of wage bargaining mechanisms in high-wage firms. In particular, we observe a strong wage penalty for workers transitioning from low-wage firms, independently of the worker type, and this penalty is even larger for high-wage workers.

Second, we extend the analysis and investigate how the productive characteristics of a worker's previous employer affect a whole range of future career outcomes, up to thirteen years after the worker has moved out of that firm. These labor market outcomes include labor earnings, risk of unemployment, promotions, and further job transitions. Moreover, their combined effects can be summarized by the present value of all labor earnings, discounted over up to thirteen years, at the time of the job switch.

Our empirical implementation strategy requires a ranking of both workers and firms. Our baseline ranking relies on the pioneering statistical wage model proposed by Abowd et al. (1999) (hereafter AKM), which decomposes wages into fixed characteristics of

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[2]Following the sequential auction model of where firms have full bargaining power, Cahuc et al. (2006) and Bagger et al. (2014) develop models in which workers get a positive share of the match surplus.

workers and their employers. Worker and firm types are then obtained by classifying worker and firm fixed effects into quintiles. We describe every job transition by the information triplet that includes the worker type, the origin firm type, and the destination firm type. For every combination of worker and destination firm type, we analyze how labor market outcomes vary across the type of the origin firm.

Because worker mobility across firms is limited, the AKM methodology relies on a small number of observations to estimate both worker and firm parameters. An extensive literature discusses the resulting downwards bias in the correlation between these fixed effects (Abowd et al., 2004; Andrews et al., 2008). Our job transition classification is prone to this bias, since this statistical issue might bring us to overestimate a worker effect and underestimate her origin firm effect, and vice versa. To limit the interpretation issues that these misclassifications might cause, we use a seven-year period prior to the job change to estimate worker and firm types. Moreover, we test the robustness of the results using three alternative ranking methodologies: the cardinal measure of types proposed by Borovičkova and Shimer (2017), the poaching index proposed by Bagger and Lentz (2019), and the firm ranking based on the average wage of co-workers Card et al. (2013).

Our contribution is threefold. First, echoing the large literature on the scarring effect of unemployment (Arulampalam et al., 2001), this paper examines the damaging effects that employment in low-wage firms potentially impart on future career outcomes. We provide evidence that employment is low-wage firms, in addition to negatively impacting contemporaneous wages, inflicts a longer scar on future employment outcomes after a firm change. Because we observe worker employment trajectories over a long period of time, we are able to empirically determine how far scarring occurs.

Second, by providing evidence that employment in low-wage firms compromises future employment outcomes, we theorize that prior career history, and specifically origin firm type, contributes to wage inequality across workers. As such, we extend the large literature investigating the potential sources of wage inequality (Card et al., 2013; Song et al., 2019). Closely related to our project, Di Addario et al. (2022) propose to add a fixed effect for the origin firm into the two-way fixed-effect AKM wage model. A variance decomposition exercise based on Italian data leads them to conclude that, while destination firm effects contribute 23% of the variance of hiring wages, the contribution

of the origin firm type is tiny, lower than one percent. Our findings are at odds with their results, since we find significant origin firm effects for workers switching to high-wage firms, particularly for workers in the highest wage quintiles. A possible explanation for this difference in findings lies in the heterogeneity in wage setting processes across firm types that we document. Indeed, low-wage firms seem to engage mostly in wage posting. For these matches, origin firm type does not appear to impact hiring wages significantly, conditional on observing the job change. In a labor market characterized with a high incidence of wage posting, one would therefore expect the variance of origin firm effects to be muted.

Third, we contribute to the literature that evaluates the prevalence of wage bargaining versus wage posting in the matching process (Hall and Krueger, 2012). Previous contributions showed that wage posting is the most common form of wage setting mechanism in low-wage labor markets (Lachowska and Woodbury, 2022) and in low-skilled labor markets (BrenÄDiÄD, 2012; Brenzel et al., 2014). While in line with these previous findings, our results indicate heterogeneity in wage setting across both firm and worker types, hence suggesting that wage-setting is intrinsic to both workers and firms.

The paper proceeds as follows. The next section presents the estimation strategy that allows us to quantify the contribution of origin firm effects to the various labor market outcomes experienced by job-to-job movers. Section 3 presents the data. Section 4 shows the result of our empirical strategy. The robustness tests are presented in Section 5. Section 6 concludes.

2 Empirical Implementation

2.1 Worker and Firm Types

First, we retrieve firm and worker types by estimating firm and worker fixed effects from the two-sided fixed-effect wage model proposed by Abowd et al. (1999) (hereafter AKM). The authors decompose log wage w_{it} of individual i in time t into additively separable worker and firm effects,

$$w_{it} = \alpha_i + \psi_{J(i,t)} + x'_{it}\beta + r_{it} \tag{1}$$

Here x_{it} captures the time-varying effect of observed characteristics, while α_i and $\psi_{J(i,t)}$ represent the time-invariant determinants of wages that are specific to the worker and the firm, respectively. x_{it} includes year dummies, a polynomial in age, and the interaction of the year dummy and polynomial in age with education dummies.

As suggested by Abowd et al. (2004) and formalized by Andrews et al. (2008), limited worker mobility across firms increases the standard least squares estimation error of both the worker and the firm fixed effects and generates a downward bias in the correlation between the two fixed effects. To limit the impact of this bias on our analysis, we estimate the log wage equation over a seven-year period prior to the workers' transition to new firms. Specifically, we focus on all job-to-job transitions occurring between November 1996 and November 1997, and we use the preceding period 1989-1995 to retrieve the worker and firm effects. By estimating the AKM wage model on a period that excludes the last and first year of employment of the transitioning workers, we prevent the negative bias to affect the correlation between the worker fixed effect and the fixed effect of the destination firm. However, because a high proportion of workers are observed as employed in the same firm the year before, we still expect the limited mobility bias to generate transition misclassifications. Specifically, limited mobility increases the risk of estimating a worker-firm pair characterized by an overestimated worker effect and an underestimated origin firm fixed effect, and vice versa. We discuss the implications in the results section. We also provide alternative worker and firm classification strategies in the robustness section.

2.2   Econometric Model of Origin Firm Effects

We describe the firm transition of worker i by the triplet $(\hat{\alpha}_i, \hat{\psi}_{J(i,ori)}, \hat{\psi}_{J(i,dest)})$, where each component is obtained from the estimation of Equation 1. To analyze the origin firm effect on labor market outcomes, we estimate the following regression model:

$$y_i = \beta_0 + \beta_1\hat{\alpha}_i + \beta_2\hat{\psi}_{J(i,ori)} + \beta_3\hat{\psi}_{J(i,dest)} + \beta_4\hat{\psi}_{J(i,ori)}*\hat{\psi}_{J(i,dest)} + \beta_5\hat{\psi}_{J(i,ori)}*\hat{\alpha}_i + x'_i\beta_6 + u_i \quad (2)$$

where y_i is the labor market outcome experienced by worker i, $\hat{\alpha}_i$ is the AKM estimate of worker i's fixed effect, $\hat{\psi}_{J(i,ori)}$ is the AKM fixed effect estimate of worker i's origin firm,

i.e. the firm previously employing worker i, $\hat{\psi}_{J(i,dest)}$ is the AKM fixed effect estimate of worker i's destination firm, i.e. the firm currently employing worker i, and x_i is a set of individual determinants of wages that includes a polynomial in age and its interaction with education dummies.

We analyze a large range of labor market outcomes: hourly wages, total labor earnings, present discounted value of all future labor earnings, tenure, probability of unemployment, and probability of further job changes. These labor market outcomes are described in Data Section 3.3.

3 Data

We exploit the linked worker-firm data from Statistics Denmark for the period 1989-2011. The data contain the employment history and labor market status of every working-age citizen residing in Denmark at the end of the year. The employment register also records the sector, tenure, and occupation of every worker, and provides an estimated hourly wage for the job held in November. We use person-level administrative registers to obtain information on each person's age, education, and gender. We create an education measure that categorizes education levels into four groups: secondary and high school education, vocational and short tertiary education, medium-length tertiary education, and long-length tertiary education. Note that, to insure consistency over time, establishments rather than firms are the unit of analysis.

3.1 Worker and Firm Types

We estimate the AKM wage equation 1 over the period 1989-1995. The raw sample contains 21,954,569 observations. We restrict our sample to all employed workers (no self-employment or secondary employment) with disclosed establishment identification numbers (7,122,308 observations deleted). Because our wage variable is an estimate of hourly wages,[3] we discard observations with hourly wage estimates deemed to be

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[3]Statistics Denmark estimates hourly wages based on accurate yearly earnings records and an estimate of the number of hours worked during the year. Hours are estimated based on yearly pension contribution records (because the accumulated pensions depend on hours), but these pension contributions records

low quality by Statistics Denmark (1,971,739 observations deleted). We restrict our sample to workers between 22 and 60 years old (1,099,983 observations deleted), with non-missing, non-zero, and non-negative wages (34,280 observations deleted). We drop all observations that belong to the bottom or top percentile of the yearly wage distributions (230,971 observations deleted). We deflate hourly wages by the 2000 CPI index. The full sample, containing 11,495,288 observations, brings together 2,446,459 workers and 225,138 establishments.

3.2   Job switchers

We focus on all workers changing jobs between November 1996 and November 1997. We define a job switcher as a worker observed as employed in one firm in November 1996, employed in a firm with a different firm identification number in November 1997, and who did not register any period of unemployment between these two dates.

Given that we characterize every job transition by the triplet $(\hat{\alpha}_i, \hat{\psi}_{J(i,ori)}, \hat{\psi}_{J(i,dest)})$, we delete observations of job switchers who do not have any worker fixed effect (because these workers were not in the 1989-1995 sample) or for whom there is no fixed effect information on either the origin firm, or the destination firm, or both (because these firms were not in the 1989-1995 sample). We obtain a sample of 119,326 job switchers.

3.3   Labor Market Outcomes

We examine several labor market outcomes following a job transition, from the first year at the new firm until 13 years after the transition. First, we record the deflated hourly wages received by the job switcher, every year up to 13 years after the job transition. We also calculate the present discounted value of all deflated labor incomes, starting on the first year at the new job, over various horizons (1, 3, 5, 10, and 13 years).[4] We use a discount rate of four percent. Second, we collect information about career development for every job switcher: duration of the employment spell at the destination firm and whether

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only inform on a potential range of hours worked.

[4]Our preferred labor market income variable is LONIND, but we show the results using SLON in the robustness section.

or not the job switcher i) remains employed at the destination firm, ii) is unemployed, or iii) has transitioned into another firm, at any time up to 13 years after the job transition.

4 Results

4.1 Diagnostics

4.1.1 Correlations

As expected from an AKM wage regression, the correlation between the worker and destination firm fixed effects is small (0.075). Relatedly, the correlation between the worker fixed effects and the fixed effects of the origin firms is also low, at 0.044. In contrast, we observe a rather high correlation between the origin and destination firm fixed effects (0.423). However, this correlation is low enough not to raise multicollinearity issues (the VIFs of the three fixed effect estimates are all below 1.3).

4.1.2 Job Ladder

We first test whether workers move up the job ladder by transitioning into firms with higher fixed effects. Figure 1 plots the histogram of the difference in firm fixed effects, specifically $\hat{\psi}_{J(i,dest)} - \hat{\psi}_{J(i,ori)}$, for three groups of workers: workers who belong to the first, third and fifth quintile of the worker fixed effect distribution. The bell shape of the distribution allude to the absence of job ladder mechanisms. Overall, only 51% of job switchers experience a positive change in firm fixed effect. When distinguishing workers belonging to different quintiles of the worker fixed effect distribution, we observe a bigger lower tail for the first quintile workers and a higher mode for the fifth quintile workers.

4.1.3 Worker and Firm Types

We focus on three labor market outcomes: the hiring hourly wage in the destination firm, total labor earnings during the first year at the destination firm, and the 10-year present discounted value of total labor earnings. Figure 2 shows how these three labor market outcomes differ across worker type, as defined by the decile of the worker fixed effect. As

expected, hourly wages, labor earnings, and the 10-year present discounted value of labor income increase monotonically, although not linearly, with the worker type, even when breaking down the effect across deciles of destination firm fixed effect (column 2).

Figure 3 reveals that the same three labor market outcomes, all calculated at the onset of the new job at the destination firm, increase with the destination firm type defined by the decile of the destination firm fixed effect. The same positive impact is observed after controlling for the worker effect (column 2).

4.2 Origin Firm

4.2.1 Diagnostics

In Figure 4, we show the positive and sizable impact of the origin firm effect on three labor market outcomes (hourly wage at the destination firm, for all job switchers, across all destination firms. Unconditionally, a worker transitioning from a firm that belongs to the top decile earns around 30 percent more than a worker transitioning from a firm that belongs to the bottom decile. This result potentially reflects the positive correlation between the origin firm type and both the worker and destination firm type. To address this issue, we show in column 2 how the origin firm type impacts the hourly wage earned at the destination firm, controlling for the destination firm effect (decile). The results point at the heterogeneity of the origin firm effect across types of destination firms. Specifically, the origin firm type does not seem to significantly impact the hourly wage of workers moving into firms at the bottom of the firm type distribution. Indeed, the bottom lines are almost flat, with a small upward curve at the 9th and 10th deciles of destination firms.

4.2.2 Results of the Empirical Specification

In this Section, we present the results of the estimation of Equation 2.

Hourly wages. We first test whether the type of the origin firm, as proxied by the AKM estimate of the origin firm fixed effect, influences the log hourly wage received at the destination firm upon transitioning to that firm. Because this wage is the first wage observed at the destination firm, we refer to it as the hiring wage. In Table 1, we show that

the origin firm type significantly affects the hiring wage. Unsurprisingly, its magnitude is lower than that of the destination firm type. Adding interaction terms in columns (2) and (3) reveals two layers of heterogeneity. First, the origin firm effect appears stronger for workers who belong to the lower tail of the worker fixed effect distribution. However, the mitigating effect of worker type is rather minor. Second, the origin firm effect appears stronger when workers move into firms that belong to the upper tail of the firm fixed effect distribution. To better interpret this result, we evaluate the origin firm effect on hiring wages at different values of the destination firm fixed effect variable. The results are shown in Figure 5. Four dashed vertical lines identify the quintile cutoffs of the destination firm fixed effects distribution. The figure shows the origin firm effect for different groups of workers (four quintile groups). However, the mitigating effect of worker type is so small that the lines overlap.

These results show that where a worker is hired from has a major effect on her hiring wage. Moreover, they clearly demonstrate that the wage determination process in high-type firms factors in the quality of the worker's outside option as proxied by the type of her origin firm. This pattern is in line with sequential auction models of firm competition over workers.

Labor earnings. The results are qualitatively similar when the dependent variable is the labor earnings received during the first year at the destination firm (Figure 5, Panel (b)). While the origin firm effect has no significant impact on labor earnings for workers transitioning into firms at the very bottom of the firm distribution, the origin firm effect is positive and significant for almost all job switchers. The gradient is positive, the origin firm effect becomes stronger as we move across the destination firm distribution.

4.2.3   Persistence

Future hourly wages. We test the persistence of the origin firm effect by examining whether the origin firm type has a positive and significant impact on future hourly wages, up to 13 years after the job transition. As reported in Figure 6, the origin firm effect is highly persistent. We observe that where a worker is hired from has a major effect on her wage, three (Panel (a)), six (Panel (b)), ten (Panel (c)), and 13 years (Panel (d)) after the worker's transition out of her origin firm.

Future labor earnings. As shown in Figure 7, we observe similar patterns when analyzing the effect that origin firm types have on future labor earnings, three (Panel (a)), six (Panel (b)), ten (Panel (c)), and 13 years (Panel (d)) after the job transition. The origin firm effect is stronger when workers transition into firms that belong to the upper tail of the firm type distribution. Note that, when the destination firm belongs to the very low end of the firm type distribution, the origin firm type turns negative.However, this case concerns fewer than one percent of the job switchers.

Future unemployment. We record every period of unemployment in the first five years after the job transition and create a dummy variable that takes the value of one if the worker ever experiences a period of unemployment during this five-year window. Shown in Figure 8, the results reveal the heterogeneous effect that the origin firm type has on the probability of unemployment. For workers moving into low-type firms, a higher origin firm type increases the risk of unemployment, while the opposite prevails for workers moving into high-type firms: a high origin firm type decreases the risk of unemployment. This result is suggestive that mismatches in the form of transitions from a high type firm to a low type firm tend to increase the probability that the match ends, with the worker transitioning into unemployment.

Future job transitions. We record all job transitions occurring between 1997 and 2010 and, for each year, we create a dummy variable that takes the value of one if the worker is registered in a firm with a different identification number compared to the one of the firm in which the worker is observed in 1997. In Figure 9, we analyze the origin firm effect on the probability of further transitions into other firms, three (Panel (a)), six (Panel (b)), and ten years (Panel (c)) after the initial job transition. Workers have a significantly higher probability to further transition into other firms when originating from a higher-type firm, up to 10 years after the initial job transition.

To better understand the further transitions workers make between 1997 and 2010, as well as the impact that the origin firm type has on this labor outcome, we single out the transitions characterized by positive hourly wage changes. The results are reported in Figure 10. The higher the origin firm type, the higher the probability to make further job transitions with positive wage gain. The results are significant up to six years after the initial job transitions.

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Present discounted values. The present discounted value of future labor earnings regroups information on all the labor market outcomes previously analyzed. The origin firm effect is positive and significant, and we also observe a positive gradient as the origin firm effect is stronger when workers move into firms belonging to the upper tail of the firm type distribution (Figure 11). This result can therefore be interpreted as follows: workers who transition out of high-type firms have better labor market outcomes up to 13 years after the transition. Indeed, these workers earn higher hourly wages in the years after the job change, receive higher labor incomes, face a lower risk of unemployment, and have a higher probability to further move into firms in which they receive higher wages. The origin firm effect is therefore highly persistent, and employment in low-type firms have a long scaring effect on a worker's career.

5 Robustness

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6 Conclusion

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A Figures

Figure 1: Change in firm fixed effect
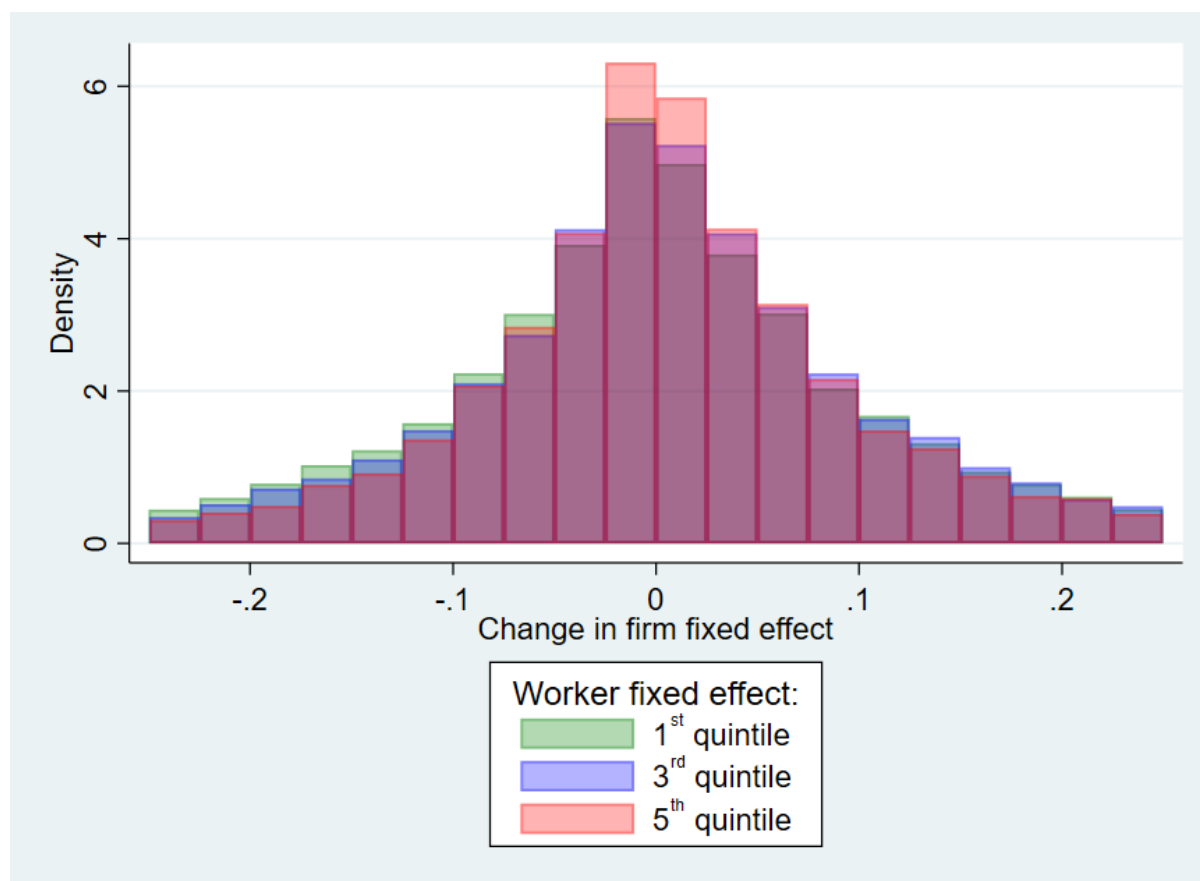
Note: The AKM worker fixed effects are categorized into quintiles. Results are shown for workers who belong to the first, third, and fifth quintiles.
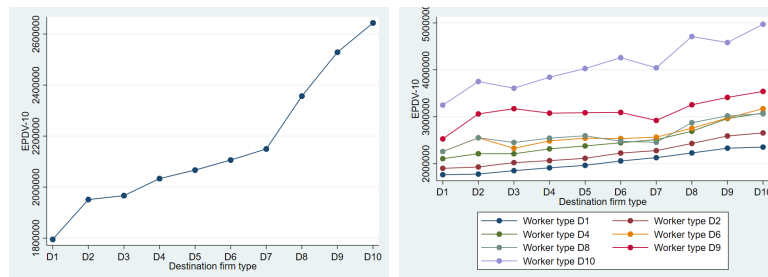
Figure 2: Effect of worker type on labor market outcomes
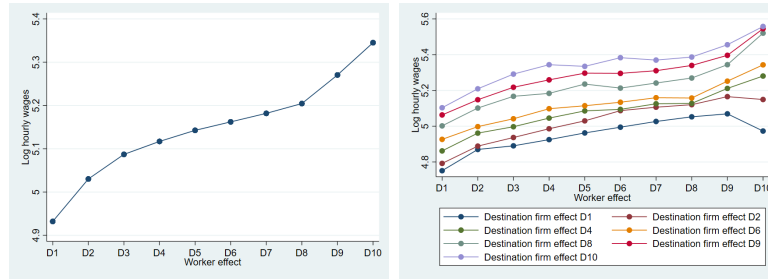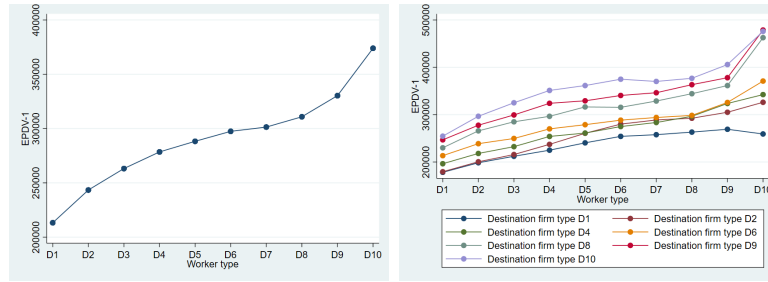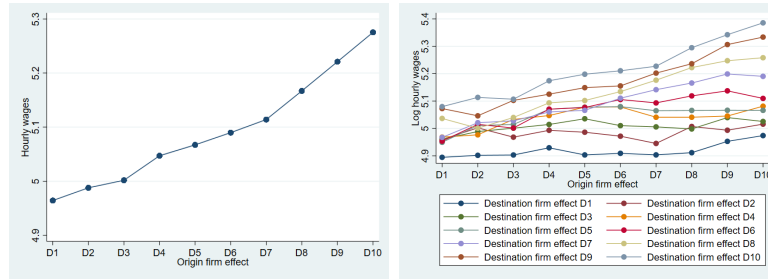

(a) Log hourly wages at destination firm
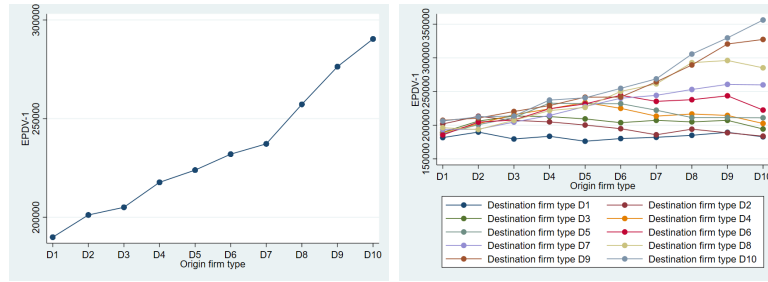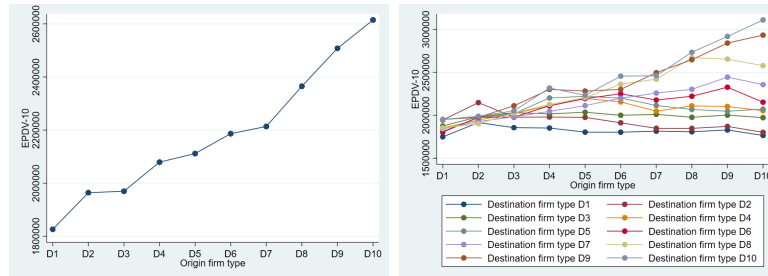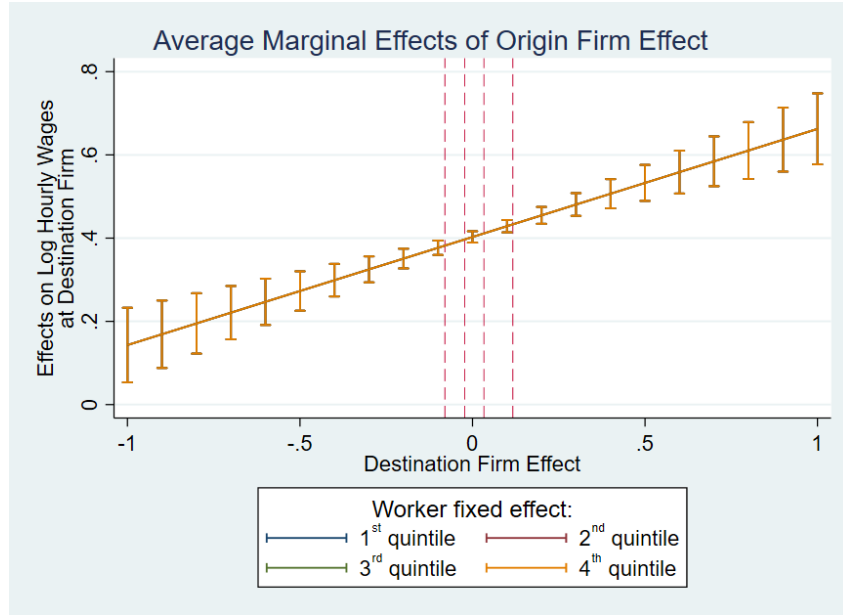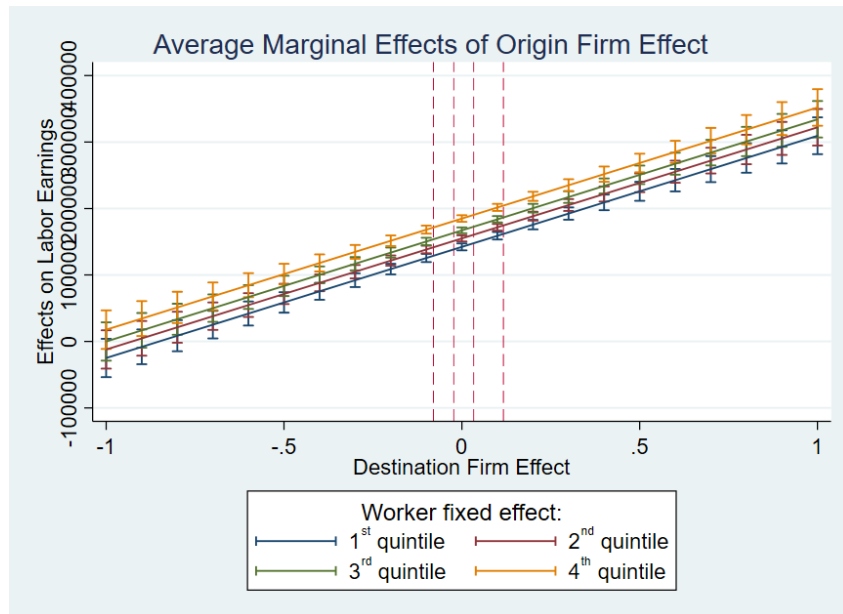

(b) Labor earnings, first year after job change
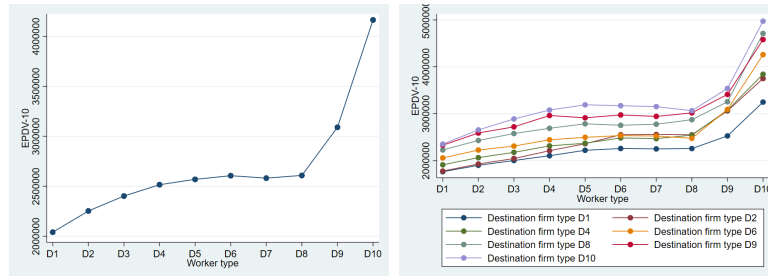
(c) Present discounted value of labor earnings, over ten years after job change

Note: The AKM worker fixed effects are categorized into 10 deciles, which define the type of each worker. LEFT: Aggregate worker effect on labor market outcomes. RIGHT: Worker effect on labor market outcomes, by destination firm type. The destination firm is the firm into which the job mover transitions. The AKM firm fixed effects are categorized into 10 deciles, which define the type of each destination firm.

Figure 3: Effect of destination firm type on labor market outcomes
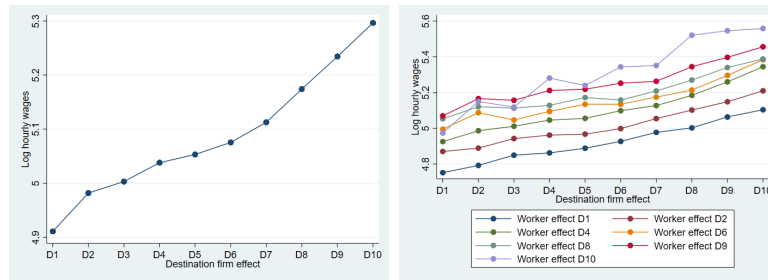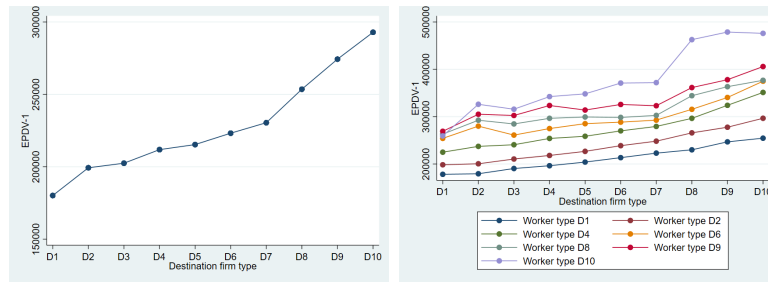
(a) Log hourly wages at destination firm

(b) Labor earnings, first year after job change

(c) Present discounted value of labor earnings, over ten years after job change

Note: The destination firm is the firm into which the job mover transitions. The AKM firm fixed effects are categorized into 10 deciles, which define the type of each destination firm. LEFT: Aggregate destination firm effect on labor market outcomes. RIGHT: Destination firm effect on labor market outcomes, by worker type. The AKM worker fixed effects are categorized into 10 deciles, which define the type of each worker.

Figure 4: Effect of origin firm type on labor market outcomes

(a) Log hourly wages at destination firm


(b) Labor earnings, first year after job change

(c) Present discounted value of labor earnings, over ten years after job change

Note: The origin firm is the firm from which the job mover transitions. The AKM firm fixed effects are categorized into 10 deciles, which define the type of each origin firm. LEFT: Aggregate origin firm effect on labor market outcomes. RIGHT: Origin firm effect on labor market outcomes, by destination firm type. The AKM destination firm fixed effects are categorized into 10 deciles, which define the type of each destination firm.

Figure 5: Effect of origin firm type on hourly wages and labor earnings

(a) Log hourly wages at destination firm

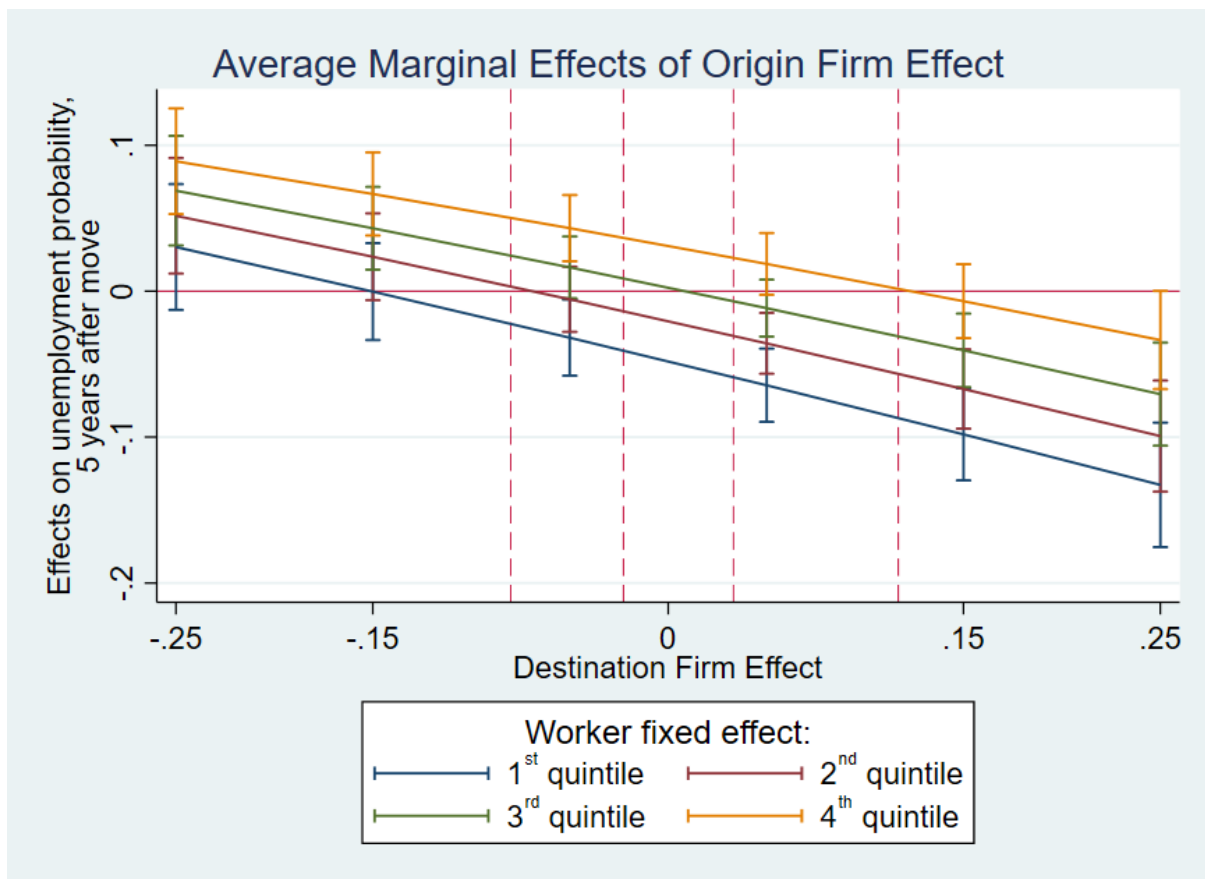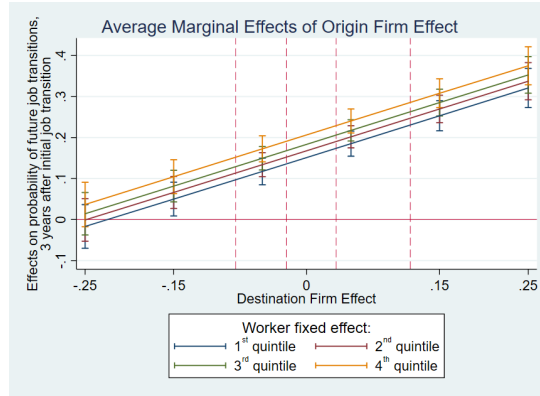(b) Labor earnings, first year after job change

Note: The dashed lines represent the four quintile cutoffs of the firm fixed effect distribution. The origin firm effect on labor market outcomes is evaluated at the four quintile cutoffs of the worker fixed effect distribution.

Figure 6: Effect of origin firm type on future hourly wages
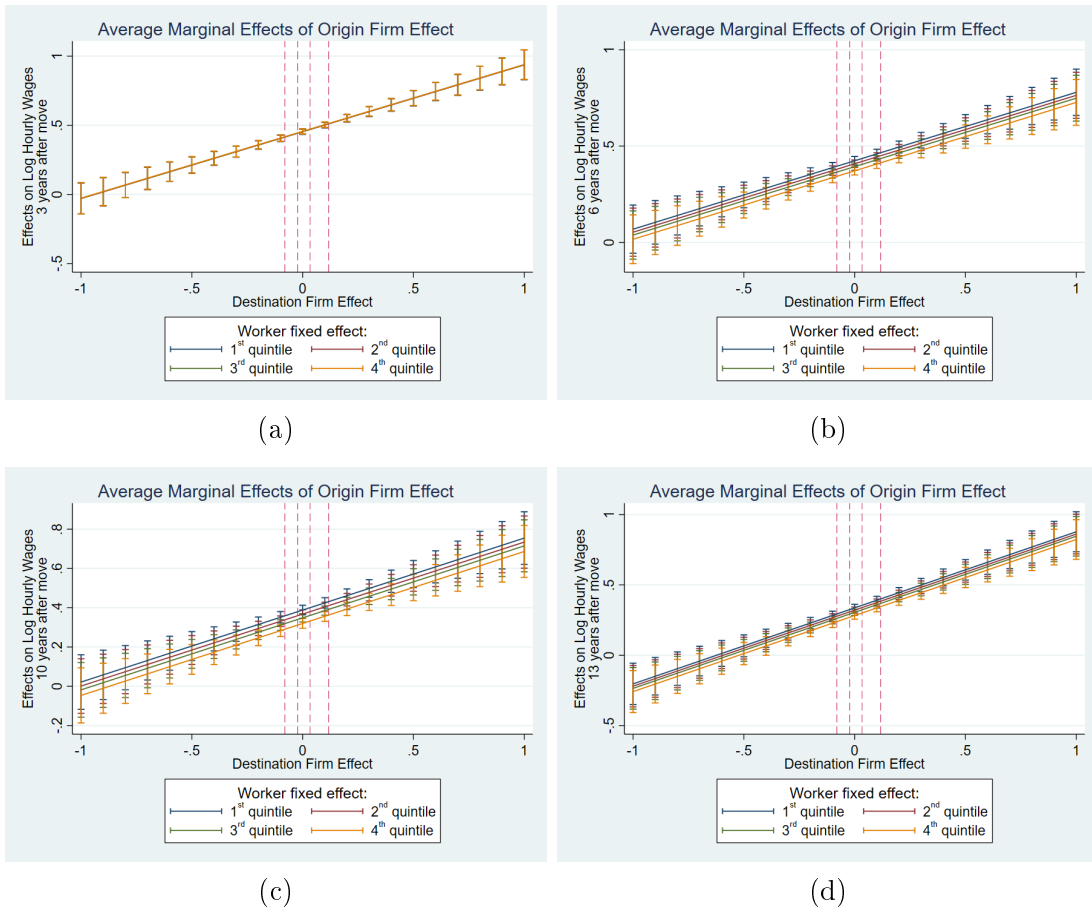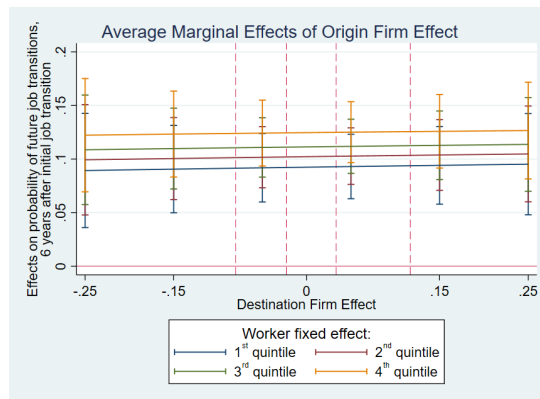

(a)

(b)

(c)

(d)

Note: The dashed lines represent the four quintile cutoffs of the firm fixed effect distribution. The origin firm effect on labor market outcomes is evaluated at the four quintile cutoffs of the worker fixed effect distribution.

Figure 7: Effect of origin firm type on future labor earnings
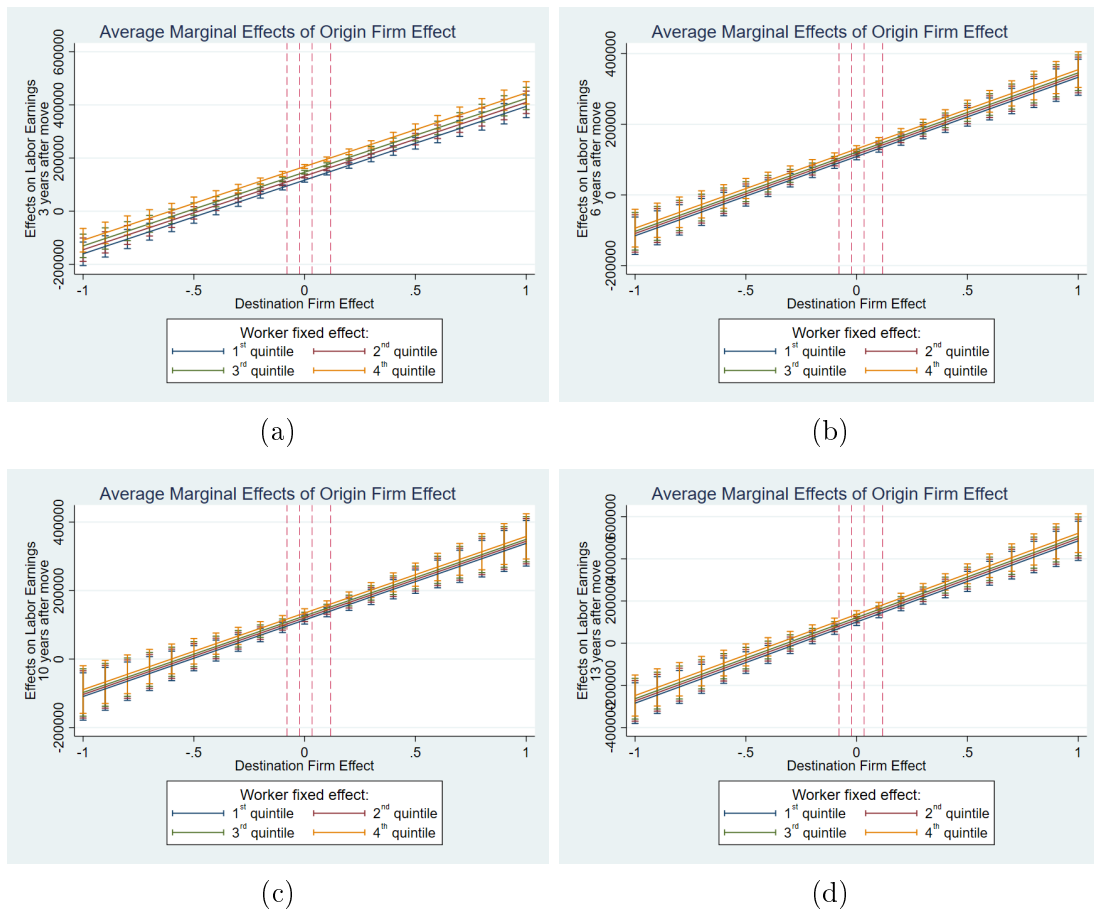
(a)

(b)

(c)

(d)

Note: The dashed lines represent the four quintile cutoffs of the firm fixed effect distribution. The origin firm effect on labor market outcomes is evaluated at the four quintile cutoffs of the worker fixed effect distribution.

Figure 8: Effect of origin firm type on future unemployment

Note: The dashed lines represent the four quintile cutoffs of the firm fixed effect distribution. The origin firm effect on labor market outcomes is evaluated at the four quintile cutoffs of the worker fixed effect distribution.
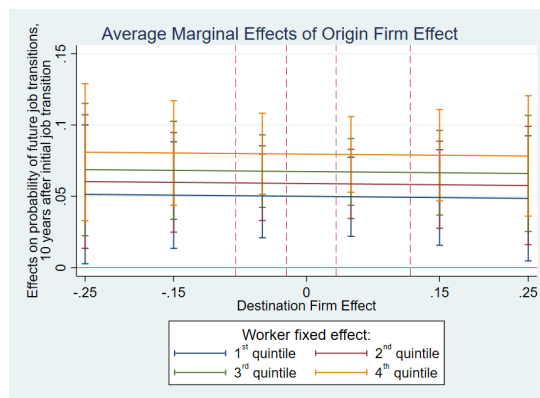
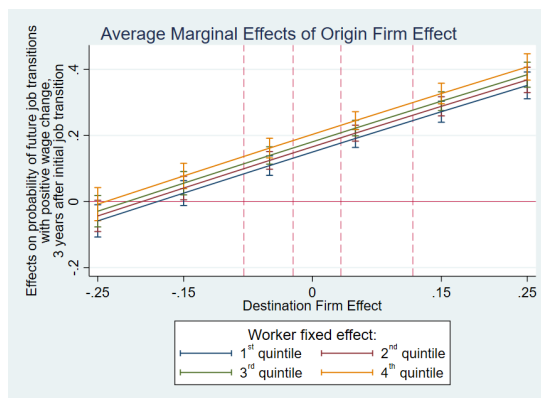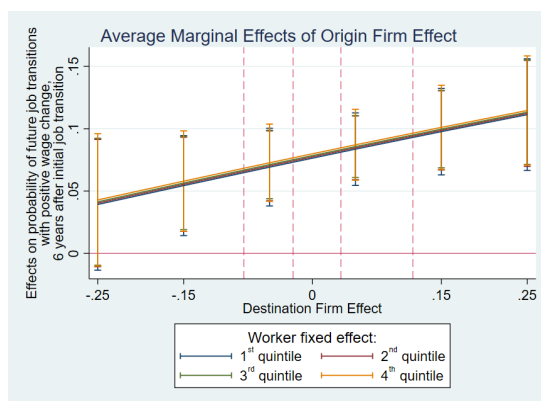Figure 9: Effect of origin firm type on future job transitions

(a)

(b)

(c)

Note: The dashed lines represent the four quintile cutoffs of the firm fixed effect distribution. The origin firm effect on labor market outcomes is evaluated at the four quintile cutoffs of the worker fixed effect distribution.
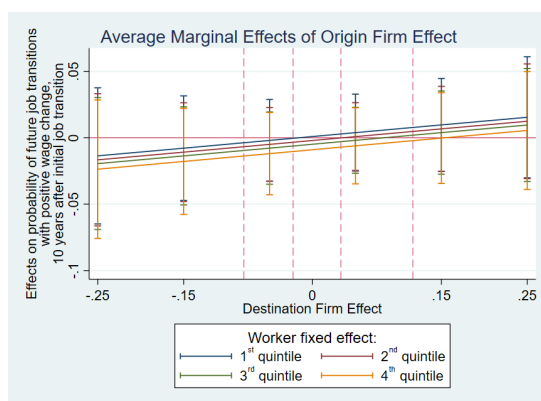
Figure 10: Effect of origin firm type on future job transitions with positive wage change
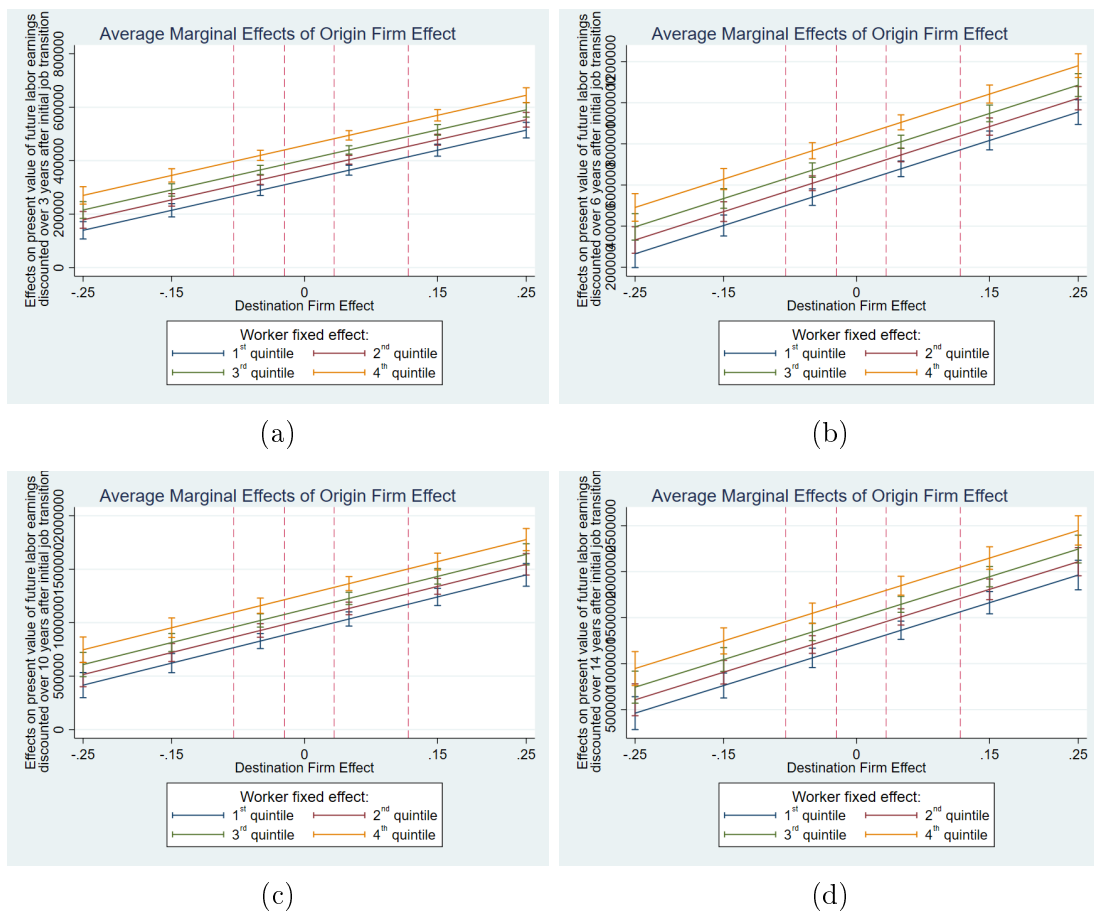

(a)

(b)

(c)

Note: The dashed lines represent the four quintile cutoffs of the firm fixed effect distribution. The origin firm effect on labor market outcomes is evaluated at the four quintile cutoffs of the worker fixed effect distribution.

Figure 11: Effect of origin firm type on PDV of future labor earnings

(a)

(b)

(c)

(d)

Note: The dashed lines represent the four quintile cutoffs of the firm fixed effect distribution. The origin firm effect on labor market outcomes is evaluated at the four quintile cutoffs of the worker fixed effect distribution.

Table 1: Origin Firm Effect

Dep. Var. Log Hourly Wages	(1)	(2)	(3)
Worker FE	0.871***	0.870***	0.871***
	(0.003)	(0.003)	(0.003)
Dest. firm FE	0.583***	0.578***	0.579***
	(0.007)	(0.007)	(0.007)
Ori. firm FE	0.409***	0.403***	0.401***
	(0.007)	(0.007)	(0.007)
Ori. firm FE * Dest. firm FE		0.260***	0.266***
		(0.044)	(0.044)
Ori. firm FE * Worker FE			−0.093***
			(0.022)
Controls	Yes	Yes	Yes
R^2	0.46	0.46	0.46
Obs	118,862	118,862	118,862

Note: $*p < 0.10, **p < 0.05, ***p < 0.01$